ABSTRACT OF THE DISCLOSURE

The present invention relates to an interconnect for an electrically driven solid electrolyte oxygen separation device comprising a composition of matter represented by the general formula:

Ln_xCa_{x'}A_{x"}Mn_yB_{y'}O₃₋₈

10

15

5

wherein

Ln is selected from the group consisting of La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, and Lu; A is selected from the group consisting of Sr, Ba and Y; B is selected from the group consisting of Cu, Co, Cr, Fe, Ni, Zn, Nb, Zr, V, Ta, Ti, Al, Mg, and Ga; $0.1 \le x \le 0.9$; $0.1 \le x' \le 0.9$; $0 \le x'' \le 0.5$; 0.5 < y < 1.2; and $0 \le y' \le 0.5$; provided that x + x' + x'' = 1 and 1.2 > y + y' > 1.0 wherein δ is a number which renders the composition of matter charge neutral.